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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PAK, JOHN D	

ART UNIT	PAPER NUMBER
1616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/690,710	GILLIS ET AL.	
	Examiner	Art Unit	
	John Pak	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 December 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *103,105-112,115,117,118,120,127,128,131,132 and 135* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *103,105-112,115,117,118,120,127,128,131,132 and 135* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claims 103, 105-112, 115, 117-118, 120, 127-128, 131-132 and 135 are pending in this application.

The terminal disclaimer filed on 6/20/2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 6,989,157 was accepted and recorded, as noted in the previous Office action of 9/10/2007.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 103, 105-112, 115, 117-118, 120, 127-128, 131-132, 135 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/60999 (hereinafter WO '999) in view of Steadman's Medical Dictionary and Visnegarwala et al.

WO '999 discloses application of agents with anti-inflammatory, antiseptic properties to the lower respiratory tract to treat infections[1] (page 1, lines 6-12; claim 22). Treatment of bronchitis, pneumonia and tuberculosis is disclosed (claim 43). Silver compound as the antiseptic agent is disclosed (page 5, line 7; claim 27). Concentration

[1] The Examiner is not relying on "preventing" infections disclosure in this reference, e.g. claim 22 and page 1, line 11.

of 0.1 to 10 wt% antiseptic agent is disclosed (page 12, lines 17-20). Spray, emulsion, dispersion, suspension or solution forms are disclosed (claim 39). Administration by nebulization agent loaded with aerosol is disclosed (page 6, line 22 to page 7, line 14; page 12, lines 10-12; claims 38, 39, 41).

Steadman's Medical Dictionary is cited to establish basic known facts about pneumonia. Pneumonia is inflammation of the lung parenchyma characterized by consolidation of affected part, the alveolar air spaces being filled with exudate, inflammatory cells, and fibrin. Most cases are due to infection by bacteria or viruses. Distribution may be lobar, segmental, or lobular; when lobular, in association with bronchitis, it is termed bronchopneumonia. See page 1392, left column.

The article by Visnegarwala et al. is cited to establish that nosocomial pneumonia and ventilator associated pneumonia are known to be serious risks of intensive care hospitalization, which are caused by community-acquired pathogens (page 193, see "Etiology") from various sources such as aspirates or inhalates (pages 193-94, see "Pathogenesis"). Various treatments with antimicrobials are known (pages 195-197). See also entire article.

Although WO '999 does not expressly disclose silver compounds in nanocrystalline form or atomically disordered nanocrystalline form, it must be pointed out that a nanocrystalline feature is a solid-state feature, i.e. nanocrystalline state disappears when solvated. Here, applicant's claims read on the nanocrystalline

materials that are in solution or in solvents, so the nanocrystalline characteristics would no longer be present when in solution or in solvents. Disclosure of WO '999 is therefore applicable with respect to nanocrystalline silver-containing compounds, because such compounds would be indistinguishable from non-nanocrystalline silver-containing compounds in solution or in solvents. One having ordinary skill in the art would have recognized that a silver compound, as taught by WO '999, can have any type of crystallinity for this reason. Nanocrystalline silver material would thus have been obvious.

It is the Examiner's position that the application features of WO '999 such as aerosol inhalation is suggestive of applicant's amendatory steps in claim 103. Microbial respiratory condition such as pneumonia, including nosocomial pneumonia and ventilator associated pneumonia, are inflammation of the lung, which can be treated by antimicrobials taken through the oral or nasal cavity (WO '999, e.g., claim 43, see above). Hence, recognition of potential occurrence of pneumonia in the left lung or the right lung ("second area") and selecting the oral or nasal cavity ("first area") to administer an antimicrobial or anti-inflammatory agent would have been obvious and routine steps that an ordinary skilled artisan in this field would have practiced. The second area either having the condition or being substantially free of the condition is merely a matter of how early the condition is being treated, i.e. soon after acquiring the community pathogen for nosocomial pneumonia, it is likely that both lungs are not

affected and perhaps only one lung is affected but not both lungs after a certain number of hours, depending on pathogenesis. After an outbreak of nosocomial pneumonia one having ordinary skill in the art would have been motivated to provide treatment early, i.e. before the second area is substantially affected. As for the feature of claims 131-132 (first area either has or does not have the condition), the ordinary skilled artisan would have recognized that the delivery of silver as taught by WO '999 and suggested by the combined teachings as a whole would not only treat the "second area" but would also treat the "first area" (i.e. the site of delivery) that may have concomitant infections or inflammation.

The different types of silver materials as recited in instant claims 107-110 are noted, but such materials or compounds are typical silver materials or compounds, which would have been suggested by the teachings of WO '999 (e.g., claim 27). Feature of claim 111 is noted but any silver compound would have silver atoms.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

Claims 103, 105-107, 109, 111-112, 117-118, 120, 127, 131-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Derwent abstract 1994-089981 in view of WO '999, Steadman's Medical Dictionary and WO 95/13704.

Derwent abstract 1994-089981 discloses the use of activated electrolytic silver water in the inhalatory treatment of tuberculosis.

Teachings of WO '999 were discussed above and the discussion there is incorporated herein by reference to avoid repetition. Further, it is noted that WO '999 teaches treatment of tuberculosis with silver compounds, the concentration of which is disclosed as being between 0.1 to 10 wt% (page 5, line 7; page 12, lines 17-20; claim 27, 43).

Steadman's Medical Dictionary is cited to establish that tuberculosis "may affect almost any tissue or organ of the body, the most common seat of the disease being the lungs" (page 1867, left column).

WO 95/13704 is cited to establish that atomic disorder can be activated by various techniques, such as irradiation (page 26) and mechanical working (page 15, line 6) for improving antimicrobial activity (see also page 15, lines 4-21). Nanocrystallinity is known to be obtained from various known techniques (page 6, lines 6-14). See claims 1-77. Note, this WO reference was cited by applicant in the IDS of 3/17/2004, page 6 of 9, Document ID WWWWW.

Although Derwent abstract 1994-089981 does not expressly disclose in verbatim language silver compounds in nanocrystalline form or atomically disordered nanocrystalline form, it must be pointed out that a nanocrystalline feature is a solid-state feature, i.e. nanocrystalline state disappears when solvated. Here, applicant's claims read on the nanocrystalline materials that are in solution or in solvents, so the nanocrystalline characteristics would no longer be present when in solution or in solvents. Disclosure of Derwent abstract 1994-089981 is therefore applicable with respect to nanocrystalline silver-containing compounds, because such compounds would be indistinguishable from non-nanocrystalline silver-containing compounds in solution or in solvents.

As for the step of dissolving a nanocrystalline metal-containing material in claim 103, a nanocrystalline silver-coated source, atomically disordered or otherwise, to be electrolyzed would at least have been obvious to try from WO 95/13704, which establishes its many benefits, including enhanced antimicrobial activity (page 11, lines 1-11; see all the claims). Further, given the prior art teachings of activating disorder through extreme conditions, electrolysis would have been expected to similarly provide additional disorder.

It is the Examiner's position that the inhalation teaching of the cited Derwent abstract is suggestive of applicant's amendatory steps in claim 103. Microbial respiratory condition such as tuberculosis is clearly taught to be treated by inhalation.

Hence, recognition of potential occurrence of tuberculosis in the left lung, the right lung or any other area of the body ("second area") and selecting the oral or nasal cavity ("first area") to administer silver would have been obvious steps that an ordinary skilled artisan in this field would have practiced. The second area either having the condition or being substantially free of the condition is merely a matter of how early the condition is being treated, since tuberculosis is known to "affect almost any tissue or organ of the body" (Steadman's Medical Dictionary). Further, inhaling an aerosol is an obvious inhalation technique in treating respiratory conditions, and thus the feature of claim 120 is suggested. As for the feature of claims 131-132 (first area either has or does not have the condition), the ordinary skilled artisan would have recognized that the delivery of silver as taught by the cited Derwent abstract and suggested by the combined teachings as a whole would not only treat the "second area" but would also treat the "first area" (i.e. the site of delivery) that may have concomitant infections or inflammation.

The concentration feature of many of the dependent claims are suggested by WO '999, which teaches similar silver concentration amounts for treating tuberculosis. The feature of claim 111 is noted but the electrolyzed silver of the cited Derwent abstract would have contained silver atoms.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because

every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

Claims 103, 105-107, 109, 111-112, 117-118, 120, 131-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quillin (US 6,899,903) in view of Keeney (US 6,103,272).

At the outset, it is noted that Quillin claims benefit of provisional application 60/391,022, filed on 6/25/2002. Disclosure made in the provisional application renders Quillin prior art under 35 USC 102(e).

Quillin discloses treating sinusitis with a solution that contains, inter alia, water and colloidal silver (see columns 5-6 and claim 1; see also provisional application page 1, paragraph 1). The solution is sprayed into the nasal cavity (claim 1; see provisional application, page 1, last paragraph).

Keeney is cited to establish what is well known about colloidal silver. Colloidal is a suspension of electrically charged microscopic metallic silver (column 1, lines 29-43), which can be made by passing current through silver electrodes (column 3, lines 61-63). Colloidal silver is known for its antimicrobial activity (column 1, lines 30-32).

Although the specific step of "dissolving a nanocrystalline metal-containing material in a solvent to form a solution" is not disclosed by Quillin in verbatim language, Quillin's colloidal silver would have been recognized as such nanocrystalline metal-

containing material, as evidenced by Keeney. Range of nanocrystallinity is not precisely defined within applicant's claim language, so microscopic silver is deemed sufficient. As for atomic disorder, the extreme condition of passing current through silver electrode would necessarily impart some atomic disorder to the resultant electrolyzed silver. The "dissolving" step is met since Quillin discloses a solution that contains the colloidal silver, which would necessarily have dissolved in it an amount of silver that could be dissolved.

Further, it must be noted again that a nanocrystalline feature is a solid-state feature, i.e. nanocrystalline state disappears when solvated. Here, applicant's claims read on the nanocrystalline materials that are in solution or in solvents, so the nanocrystalline characteristics would no longer be present when in solution or in solvents. Disclosure of Quillin is therefore applicable with respect to nanocrystalline silver-containing material, because such material would be indistinguishable from non-nanocrystalline silver-containing compounds in solution or in solvents.

It is the Examiner's position that Quillin's spraying into a nasal cavity is suggestive of applicant's amendatory steps in claim 103. Microbial respiratory condition such as sinusitis is clearly taught to be treated by contact through the nasal cavity. Hence, recognition of potential occurrence of sinusitis in an area different from the nasal cavity, such as sinus cavity that is not exactly in the nasal cavity ("second area") and selecting the nasal cavity ("first area") to administer silver would have been obvious

steps that an ordinary skilled artisan in this field would have practiced. The second area either having the condition or being substantially free of the condition is merely a matter of how early the condition is being treated, since sinusitis can spread to wider regions of the affected sinuses. As for the feature of claims 131-132 (first area either has or does not have the condition), the ordinary skilled artisan would have recognized that the delivery of silver as taught by Quillin and suggested by the combined teachings as a whole would not only treat the "second area" but also treat the "first area" (i.e. the site of delivery) that may have concomitant infections or inflammation.

Spraying via an aerosol would have been an obvious technique for delivering Quillin's spray into the nasal cavity because aerosols are conventional delivery form for providing treatment for respiratory conditions. The feature of claim 111 is noted but the colloidal silver of Quillin would have contained silver atoms.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

Claims 103, 105-107, 109, 111-112, 117-118, 120, 127, 131-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank (US 6,454,754) in view of Keeney (US 6,103,272) and Steadman's Medical Dictionary.

Frank discloses delivering 20-60 ppm colloidal silver suspension via nebulizer, aerosol or spray atomizer to combat infections of the lungs such as bronchitis, chest colds, tuberculosis and sinus infection (claims 1, 4; and column 3, lines 23-55). It is noted that 20 ppm and 60 ppm are 0.002 w/w% and 0.006 w/w%, respectively. Inhalation through the nose is disclosed to overcome severe sinus infections (column 3, lines 52-55).

Keeney is cited to establish what is well known about colloidal silver. Colloidal is a suspension of electrically charged microscopic metallic silver (column 1, lines 29-43), which can be made by passing current through silver electrodes (column 3, lines 61-63). Colloidal silver is known for its antimicrobial activity (column 1, lines 30-32).

Steadman's Medical Dictionary is cited to establish that tuberculosis "may affect almost any tissue or organ of the body, the most common seat of the disease being the lungs" (page 1867, left column).

Although the specific step of "dissolving a nanocrystalline metal-containing material in a solvent to form a solution" is not disclosed by Frank in verbatim language, Frank's colloidal silver would have been recognized as such nanocrystalline metal-containing material, as evidenced by Keeney. Range of nanocrystallinity is not precisely defined within applicant's claim language, so microscopic silver is deemed sufficient. As for atomic disorder, the extreme condition of passing current through silver electrode would necessarily impart some atomic disorder to the resultant

electrolyzed silver. The "dissolving" step is met since Frank discloses a composition that contains the colloidal silver, which would necessarily have dissolved in it an amount of silver that could be dissolved.

Further, it must be noted again that a nanocrystalline feature is a solid-state feature, i.e. nanocrystalline state disappears when solvated. Here, applicant's claims read on the nanocrystalline materials that are in solution or in solvents, so the nanocrystalline characteristics would no longer be present when in solution or in solvents. Disclosure by Frank is therefore applicable with respect to nanocrystalline silver-containing material, because such material would be indistinguishable from non-nanocrystalline silver-containing compounds in solution or in solvents.

It is the Examiner's position that Frank's spraying, nebulizing or aerosol delivery is suggestive of applicant's amendatory steps in claim 103. Microbial respiratory conditions such as bronchitis, chest colds, tuberculosis and sinus infection are clearly taught to be treated by contact through the oral or nasal cavity. Hence, recognition of potential occurrence of such conditions in an area different from the oral or nasal cavity ("second area") and selecting the oral or nasal cavity to administer silver would have been obvious steps that an ordinary skilled artisan in this field would have practiced. The second area either having the condition or being substantially free of the condition is merely a matter of how early the condition is being treated, since conditions such as sinusitis can spread to wider regions of the affected sinuses and tuberculosis can

spread to other parts of the body. As for the feature of claims 131-132 (first area either has or does not have the condition), the ordinary skilled artisan would have recognized that the delivery of silver as taught by Frank and suggested by the combined teachings as a whole would not only treat the "second area" but also treat the "first area" (i.e. the site of delivery) that may have concomitant infections or inflammation.

The feature of claim 111 is noted but the colloidal silver of Frank would have contained silver atoms.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

Claims 103, 105-112, 115, 117-118, 120, 127-128, 131-132, 135 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrell et al. (US 7,087,249) in view of Steadman's Medical Dictionary and Visnegarwala et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Burrell et al. claim a method of reducing inflammation or infection of a mucosal membrane, including nasal, pulmonary, trachea and pharynx airways (claims 1 and 3-4). The inflamed or infected area is contacted with a therapeutically effective amount of antimicrobial metals in nanocrystalline form, which is characterized by sufficient atomic disorder so that the metal, in contact with an alcohol or water-based electrolyte, releases atoms, ions, molecules or clusters of the metal on a sustainable basis (claim 1). Nanocrystalline silver is disclosed (claim 6). Delivery in the form of a powder, aerosol, spray, mist to the oral cavity or to an area of the nasal, bronchial, pulmonary, trachea or pharynx airways to treat a respiratory disorder is claimed (claims 8-11). 40-500 µg/ml concentration is claimed, which is equivalent to 0.4 w/v% for 40 µg/ml (see claim 9). Treatment of tuberculosis and pneumonia is disclosed (column 8, line 55).

Steadman's Medical Dictionary is cited to establish that tuberculosis "may affect almost any tissue or organ of the body, the most common seat of the disease being the lungs" (page 1867, left column). Steadman's is cited to also establish basic known facts about pneumonia. Pneumonia is inflammation of the lung parenchyma characterized by consolidation of affected part, the alveolar air spaces being filled with exudate, inflammatory cells, and fibrin. Most cases are due to infection by bacteria or viruses.

Distribution may be lobar, segmental, or lobular; when lobular, in association with bronchitis, it is termed bronchopneumonia. See page 1392, left column.

The article by Visnegarwala et al. is cited to establish that nosocomial pneumonia and ventilator associated pneumonia are known to be serious risks of intensive care hospitalization, which are caused by community-acquired pathogens (page 193, see "Etiology") from various sources such as aspirates or inhalates (pages 193-94, see "Pathogenesis"). Various treatments with antimicrobials are known (pages 195-197). See also entire article.

Even though the specific step of "dissolving a nanocrystalline metal-containing material in a solvent to form a solution" is not disclosed in verbatim language by Burrell et al., the same step would have been fairly suggested. Burrell's claim 8 discloses an aerosol, spray or mist delivered to the oral or nasal cavity. The aerosol, spray or mist of the atomically disordered nanocrystalline material would obviously have been made by combining and dissolving some portion of the nanocrystalline silver in a carrier solvent to form the aerosol, spray or mist.

Contacting a first area to reduce the occurrence of the condition at a second area is clearly encompassed by Burrell's claims. Burrell's delivery of an aerosol, spray or mist via the oral cavity or nasal airways (claims 8-11) would plainly meet this feature when treating a respiratory disorder such as pneumonia or tuberculosis, which affect other areas of the body such as the lungs.

Microbial respiratory condition such as pneumonia, including nosocomial pneumonia and ventilator associated pneumonia, are inflammation of the lung, which can be treated by antimicrobials taken through the oral or nasal cavity (Burrell et al.). Hence, recognition of potential occurrence of pneumonia in the left lung or the right lung ("second area") and selecting the oral or nasal cavity ("first area") to administer an antimicrobial or anti-inflammatory agent would have been obvious and routine steps that an ordinary skilled artisan in this field would have practiced. The second area either having the condition or being substantially free of the condition is merely a matter of how early the condition is being treated, i.e. soon after acquiring the community pathogen for nosocomial pneumonia, it is likely that both lungs are not affected and perhaps only one lung is affected but not both lungs after a certain number of hours, depending on pathogenesis. After an outbreak of nosocomial pneumonia one having ordinary skill in the art would have been motivated to provide treatment early, i.e. before the second area is substantially affected. As for the feature of claims 131-132 (first area either has or does not have the condition), the ordinary skilled artisan would have recognized that the delivery of silver as taught by Burrell et al. and suggested by the combined prior art teachings as a whole would not only treat the "second area" but would also treat the "first area" (i.e. the site of delivery) that may have concomitant infections or inflammation.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

All claims are rejected. No claim is allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to John Pak whose telephone number is **(571)272-0620.** The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Pak/
Primary Examiner, Art Unit 1616